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TECH CENTER 1600/2900

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TECH CENTER 1600/2900

Sequence Listing

<110> Adams, Sean  
Pan, James  
Zhong, Alan

<120> UCP4

<130> P1626R1

<140> US 09/397,342

<141> 1999-09-15

<150> US 60/101,279

<151> 1998-09-22

<150> US 60/114,223

<151> 1998-12-30

<150> US 60/129,674

<151> 1999-04-16

<160> 18

<210> 1

<211> 323

<212> PRT

<213> Homo sapiens

<400> 1

Met Ser Val Pro Glu Glu Glu Arg Leu Leu Pro Leu Thr Gln  
1 5 10 15

Arg Trp Pro Arg Ala Ser Lys Phe Leu Leu Ser Gly Cys Ala Ala  
20 25 30

Thr Val Ala Glu Leu Ala Thr Phe Pro Leu Asp Leu Thr Lys Thr  
35 40 45

Arg Leu Gln Met Gln Gly Glu Ala Ala Leu Ala Arg Leu Gly Asp  
50 55 60

Gly Ala Arg Glu Ser Ala Pro Tyr Arg Gly Met Val Arg Thr Ala  
65 70 75

Leu Gly Ile Ile Glu Glu Glu Gly Phe Leu Lys Leu Trp Gln Gly  
80 85 90

Val Thr Pro Ala Ile Tyr Arg His Val Val Tyr Ser Gly Gly Arg  
95 100 105

Met Val Thr Tyr Glu His Leu Arg Glu Val Val Phe Gly Lys Ser  
110 115 120

Glu Asp Glu His Tyr Pro Leu Trp Lys Ser Val Ile Gly Gly Met  
125 130 135

Met	Ala	Gly	Val	Ile	Gly	Gln	Phe	Leu	Ala	Asn	Pro	Thr	Asp	Leu	
				140					145					150	
Val	Lys	Val	Gln	Met	Gln	Met	Glu	Gly	Lys	Arg	Lys	Leu	Glu	Gly	
				155					160					165	
Lys	Pro	Leu	Arg	Phe	Arg	Gly	Val	His	His	Ala	Phe	Ala	Lys	Ile	
				170					175					180	
Leu	Ala	Glu	Gly	Gly	Ile	Arg	Gly	Leu	Trp	Ala	Gly	Trp	Val	Pro	
				185					190					195	
Asn	Ile	Gln	Arg	Ala	Ala	Leu	Val	Asn	Met	Gly	Asp	Leu	Thr	Thr	
				200					205					210	
Tyr	Asp	Thr	Val	Lys	His	Tyr	Leu	Val	Leu	Asn	Thr	Pro	Leu	Glu	
				215					220					225	
Asp	Asn	Ile	Met	Thr	His	Gly	Leu	Ser	Ser	Leu	Cys	Ser	Gly	Leu	
				230					235					240	
Val	Ala	Ser	Ile	Leu	Gly	Thr	Pro	Ala	Asp	Val	Ile	Lys	Ser	Arg	
				245					250					255	
Ile	Met	Asn	Gln	Pro	Arg	Asp	Lys	Gln	Gly	Arg	Gly	Leu	Leu	Tyr	
				260					265					270	
Lys	Ser	Ser	Thr	Asp	Cys	Leu	Ile	Gln	Ala	Val	Gln	Gly	Glu	Gly	
				275					280					285	
Phe	Met	Ser	Leu	Tyr	Lys	Gly	Phe	Leu	Pro	Ser	Trp	Leu	Arg	Met	
				290					295					300	
Thr	Pro	Trp	Ser	Met	Val	Phe	Trp	Leu	Thr	Tyr	Glu	Lys	Ile	Arg	
				305					310					315	
Glu	Met	Ser	Gly	Val	Ser	Pro	Phe								
				320											

<210> 2  
 <211> 1039  
 <212> DNA  
 <213> Homo sapiens

<400> 2  
 ccgagctcgg atcccgttat cgtcttgccg tactgctgaa tgtccgtccc 50  
 ggaggaggag gagaggcttt tgccgctgac ccagagatgg ccccgagcga 100  
 gcaaattcct actgtccggc tgcgcggcta ccgtggccga gctagcaacc 150  
 tttcccctgg atctcacaaa aactcgactc caaatgcaag gagaagcagc 200  
 tcttgctcgg ttgggagacg gtgcaagaga atctgcccc tataggggaa 250  
 tggtgccgac agccctaggg atcattgaag aggaaggctt tctaaagctt 300  
 tggcaaggag tgacacccgc catttacaga cacgtagtgt attctggagg 350

tcgaatggtc acatatgaac atctccgaga ggttgtgttt ggcaaaagtg 400  
 aagatgagca ttatcccctt tggaaatcag tcattggagg gatgatggct 450  
 ggtgttattg gccagttttt agccaatcca actgacctag tgaaggttca 500  
 gatgcaaatg gaaggaaaaa ggaaactgga aggaaaacca ttgcgatttc 550  
 gtggtgtaca tcatgcattt gcaaaaatct tagctgaagg aggaatacga 600  
 gggctttggg caggctgggt acccaatata caaagagcag cactggtgaa 650  
 tatgggagat ttaaccactt atgatacagt gaaacactac ttggtattga 700  
 atacaccact tgaggacaat atcatgactc acggtttatc aagtttatgt 750  
 tctggactgg tagcttctat tctgggaaca ccagccgatg tcatcaaaag 800  
 cagaataatg aatcaaccac gagataaaca aggaagggga cttttgtata 850  
 aatcatcgac tgactgcttg attcaggctg ttcaagggtga aggattcatg 900  
 agtctatata aaggcttttt accatcttgg ctgagaatga ccccttggtc 950  
 aatggtgttc tggcttactt atgaaaaaat cagagagatg agtggagtca 1000  
 gtccatttta agaattctgc agatatccat cacactggc 1039

<210> 3  
 <211> 31  
 <212> DNA  
 <213> Artificial

<220>  
 <221> Misc-feature  
 <222> 1-31  
 <223> Sequence is synthesized

<400> 3  
 cgcgatccc gttatcgtct tgcgctactg c 31

<210> 4  
 <211> 34  
 <212> DNA  
 <213> Artificial

<220>  
 <221> Misc-feature  
 <222> 1-34  
 <223> Sequence is synthesized

<400> 4  
 gcggaattct taaaatggac tgactccact catc 34

<210> 5  
 <211> 1248  
 <212> DNA  
 <213> Artificial

<220>  
<221> Misc-feature  
<222> 1-1248  
<223> Sequence is synthesized

<220>  
<221> unsure  
<222> 1231  
<223> unknown base

<400> 5  
cgttatcgtc ttgcgctact gctgaatgtc cgtcccgag gagaggaga 50  
ggcttttgcc gctgaccag agatggcccc gagcgagcaa attcctactg 100  
tccggctgcg cggctaccgt ggccgagcta gcaacctttc ccctggatct 150  
cacaaaaact cgactccaaa tgcaaggaga agcagctctt gctcggttgg 200  
gagacggtgc aagagaatct gccccctata ggggaatggt gcgcacagcc 250  
ctagggatca ttgaagagga aggctttcta aagctttggc aaggagtgc 300  
accgcgcatc tacagacacg tagttatttc tggaggtcga atggtcacat 350  
atgaacatct ccgagagggt gtgtttggca aaagtgaaga tgagcattat 400  
cccctttgga aatcagtcac tggaggggatg atggctggtg ttattggcca 450  
gttttttagc aatccaactg acctagtga ggttcagatg caaatggaag 500  
gaaaaaggaa actggaagga aaaccattgc gatttcgtgg tgtacatcat 550  
gcatttgcaa aaatcttagc tgaaggagga atacgaaggc tttgggcagg 600  
ctgggtaccc aatatacaaa gagcagcact ggtgaatatg ggagatttaa 650  
ccacttatga tacagtgaaa cactacttgg tattgaatac accacttgag 700  
gacaatatca tgactcacgg tttatcaagt ttatgttctg gactggtagc 750  
ttctattctg ggaacaccag ccgatgtcat caaaagcaga ataataatc 800  
aaccacgaga taaacaagga aggggacttt tgtataaatc atcgactgac 850  
tgcttgattc aggctgttca aggtgaagga ttcattgagtc tatataaagg 900  
ctttttacca tcttggtga gaatgacccc ttggtcaatg gtgttctggc 950  
ttacttatga aaaaatcaga gagatgagtg gagtcagtc attttaaacc 1000  
cctaaagatg caacccttaa agatacagtg ttcagtatta ttgaaatatg 1050  
ggcatctgca acacataccc cctattatct ctacctcttt aggaagacac 1100  
ctattccaca gagactgatt tatagggggc agcactttat ttttttctgg 1150  
aaaccaagt tctctttgac tcctcttttt gtccaaaagt gatctggtcg 1200

gatctcacaa ggccatccaa tgagaccccg nacagcattt tctaaaga 1248

<210> 6  
<211> 58  
<212> DNA  
<213> Artificial

<220>  
<221> Misc-feature  
<222> 1-58  
<223> Sequence is synthesized

<400> 6  
cgcgatccg aaatggacta caaggacgac gatgacaagt ccgtcccga 50

ggaggagg 58

<210> 7  
<211> 35  
<212> DNA  
<213> Artificial

<220>  
<221> Misc-feature  
<222> 1-35  
<223> Sequence is synthesized

<400> 7  
gcgaagcttg ccatggttgg actgaagcct tcaga 35

<210> 8  
<211> 33  
<212> DNA  
<213> Artificial

<220>  
<221> Misc-feature  
<222> 1-33  
<223> Sequence is synthesized

<400> 8  
cgcgaattct caaaacggtg attcccgtaa cat 33

<210> 9  
<211> 61  
<212> DNA  
<213> Artificial

<220>  
<221> Misc-feature  
<222> 1-61  
<223> Sequence is synthesized

<400> 9  
gcgaagcttg ccatggacta caaggacgac gatgacaagg ttggactgaa 50

gccttcagac g 61

<210> 10  
 <211> 19  
 <212> DNA  
 <213> Artificial  
  
 <220>  
 <221> Misc-feature  
 <222> 1-19  
 <223> Sequence is synthesized  
  
 <400> 10  
 aatgcctatc gccgaggag 19  
  
 <210> 11  
 <211> 20  
 <212> DNA  
 <213> Artificial  
  
 <220>  
 <221> Misc-feature  
 <222> 1-20  
 <223> Sequence is synthesized  
  
 <400> 11  
 gtaggaactt gctcgtccgg 20  
  
 <210> 12  
 <211> 22  
 <212> DNA  
 <213> Artificial  
  
 <220>  
 <221> Misc-feature  
 <222> 1-22  
 <223> Sequence is synthesized  
  
 <400> 12  
 tgctcgcgct cacgcagaga tg 22  
  
 <210> 13  
 <211> 24  
 <212> DNA  
 <213> Artificial  
  
 <220>  
 <221> Misc-feature  
 <222> 1-24  
 <223> Sequence is synthesized  
  
 <400> 13  
 gaaatcgtgc gtgacatcaa agag 24  
  
 <210> 14  
 <211> 23  
 <212> DNA  
 <213> Artificial  
  
 <220>

<221> Misc-feature  
<222> 1-23  
<223> Sequence is synthesized

<400> 14  
ctccttctgc atcctgtcag caa 23

<210> 15  
<211> 22  
<212> DNA  
<213> Artificial

<220>  
<221> Misc-feature  
<222> 1-22  
<223> Sequence is synthesized

<400> 15  
cggttccgat gccctgaggc tc 22

<210> 16  
<211> 307  
<212> PRT  
<213> Homo sapiens

<400> 16  
Met Gly Gly Leu Thr Ala Ser Asp Val His Pro Thr Leu Gly Val  
1 5 10 15  
Gln Leu Phe Ser Ala Pro Ile Ala Ala Cys Leu Ala Asp Val Ile  
20 25 30  
Thr Phe Pro Leu Asp Thr Ala Lys Val Arg Leu Gln Val Gln Gly  
35 40 45  
Glu Cys Pro Thr Ser Ser Val Ile Arg Tyr Lys Gly Val Leu Gly  
50 55 60  
Thr Ile Thr Ala Val Val Lys Thr Glu Gly Arg Met Lys Leu Tyr  
65 70 75  
Ser Gly Leu Pro Ala Gly Leu Gln Arg Gln Ile Ser Ser Ala Ser  
80 85 90  
Leu Arg Ile Gly Leu Tyr Asp Thr Val Gln Glu Phe Leu Thr Ala  
95 100 105  
Gly Lys Glu Thr Ala Pro Ser Leu Gly Ser Lys Ile Leu Ala Gly  
110 115 120  
Leu Thr Thr Gly Gly Val Ala Val Phe Ile Gly Gln Pro Thr Glu  
125 130 135  
Val Val Lys Val Arg Leu Gln Ala Gln Ser His Leu His Gly Ile  
140 145 150  
Lys Pro Arg Tyr Thr Gly Thr Tyr Asn Ala Tyr Arg Ile Ile Ala  
155 160 165

Thr Thr Glu Gly Leu Thr Gly Leu Trp Lys Gly Thr Thr Pro Asn	170	175	180
Leu Met Arg Ser Val Ile Ile Asn Cys Thr Glu Leu Val Thr Tyr	185	190	195
Asp Leu Met Lys Glu Ala Phe Val Lys Asn Asn Ile Leu Ala Asp	200	205	210
Asp Val Pro Cys His Leu Val Ser Ala Leu Ile Ala Gly Phe Cys	215	220	225
Ala Thr Ala Met Ser Ser Pro Val Asp Val Val Lys Thr Arg Phe	230	235	240
Ile Asn Ser Pro Pro Gly Gln Tyr Lys Ser Val Pro Asn Cys Ala	245	250	255
Met Lys Val Phe Thr Asn Glu Gly Pro Thr Ala Phe Phe Lys Gly	260	265	270
Leu Val Pro Ser Phe Leu Arg Leu Gly Ser Trp Asn Val Ile Met	275	280	285
Phe Val Cys Phe Glu Gln Leu Lys Arg Glu Leu Ser Lys Ser Arg	290	295	300
Gln Thr Met Asp Cys Ala Thr	305		

<210> 17  
 <211> 309  
 <212> PRT  
 <213> Homo sapiens

<400> 17

Met Val Gly Phe Lys Ala Thr Asp Val Pro Pro Thr Ala Thr Val	1	5	10	15
Lys Phe Leu Gly Ala Gly Thr Ala Ala Cys Ile Ala Asp Leu Ile	20	25	30	
Thr Phe Pro Leu Asp Thr Ala Lys Val Arg Leu Gln Ile Gln Gly	35	40	45	
Glu Ser Gln Gly Pro Val Arg Ala Thr Val Ser Ala Gln Tyr Arg	50	55	60	
Gly Val Met Gly Thr Ile Leu Thr Met Val Arg Thr Glu Gly Pro	65	70	75	
Arg Ser Leu Tyr Asn Gly Leu Val Ala Gly Leu Gln Arg Gln Met	80	85	90	
Ser Phe Ala Ser Val Arg Ile Gly Leu Tyr Asp Ser Val Lys Gln	95	100	105	



Phe Tyr Thr Lys Gly Ser Glu His Ala	Ser Ile Gly Ser Arg Leu
110	115 120
Leu Ala Gly Ser Thr Thr Gly Ala Leu	Ala Val Ala Val Ala Gln
125	130 135
Pro Thr Asp Val Val Lys Val Arg Phe	Gln Ala Gln Ala Arg Ala
140	145 150
Gly Gly Gly Arg Arg Tyr Gln Ser Thr	Val Asn Ala Tyr Lys Thr
155	160 165
Ile Ala Arg Glu Glu Gly Phe Arg Gly	Leu Trp Lys Gly Thr Ser
170	175 180
Pro Asn Val Ala Arg Asn Ala Ile Val	Asn Cys Ala Glu Leu Val
185	190 195
Thr Tyr Asp Leu Ile Lys Asp Ala Leu	Leu Lys Ala Asn Leu Met
200	205 210
Thr Asp Asp Leu Pro Cys His Phe Thr	Ser Ala Phe Gly Ala Gly
215	220 225
Phe Cys Thr Thr Val Ile Ala Ser Pro	Val Asp Val Val Lys Thr
230	235 240
Arg Tyr Met Asn Ser Ala Leu Gly Gln	Tyr Ser Ser Ala Gly His
245	250 255
Cys Ala Leu Thr Met Leu Gln Lys Glu	Gly Pro Arg Ala Phe Tyr
260	265 270
Lys Gly Phe Met Pro Ser Phe Leu Arg	Leu Gly Ser Trp Asn Val
275	280 285
Val Met Phe Val Thr Tyr Glu Gln Leu	Lys Arg Ala Leu Met Ala
290	295 300
Ala Cys Thr Ser Arg Glu Ala Pro Phe	
305	

<210> 18  
 <211> 300  
 <212> PRT  
 <213> Homo sapiens

<400> 18  
 Met Ala Val Lys Phe Leu Gly Ala Gly Thr Ala Ala Cys Phe Ala  
 1 5 10 15  
 Asp Leu Val Thr Phe Pro Leu Asp Thr Ala Lys Val Arg Leu Gln  
 20 25 30  
 Ile Gln Gly Glu Asn Gln Ala Val Gln Thr Ala Arg Leu Val Gln  
 35 40 45

Tyr Arg Gly Val	Leu Gly Thr Ile Leu Thr Met Val Arg Thr Glu	50	55	60
Gly Pro Cys Ser	Pro Tyr Asn Gly Leu Val Ala Gly Leu Gln Arg	65	70	75
Gln Met Ser Phe	Ala Ser Ile Arg Ile Gly Leu Tyr Asp Ser Val	80	85	90
Lys Gln Val Tyr	Thr Pro Lys Gly Ala Asp Asn Ser Ser Leu Thr	95	100	105
Thr Arg Ile Leu	Ala Gly Cys Thr Thr Gly Ala Met Ala Val Thr	110	115	120
Cys Ala Gln Pro	Thr Asp Val Val Lys Val Arg Phe Gln Ala Ser	125	130	135
Ile His Leu Gly	Pro Ser Arg Ser Asp Arg Lys Tyr Ser Gly Thr	140	145	150
Met Asp Ala Tyr	Arg Thr Ile Ala Arg Glu Glu Gly Val Arg Gly	155	160	165
Leu Trp Lys Gly	Thr Leu Pro Asn Ile Met Arg Asn Ala Ile Val	170	175	180
Asn Cys Ala Glu	Val Val Thr Tyr Asp Ile Leu Lys Glu Lys Leu	185	190	195
Leu Asp Tyr His	Leu Leu Thr Asp Asn Phe Pro Cys His Phe Val	200	205	210
Ser Ala Phe Gly	Ala Gly Phe Cys Ala Thr Val Val Ala Ser Pro	215	220	225
Val Asp Val Val	Lys Thr Arg Tyr Met Asn Ser Pro Pro Gly Gln	230	235	240
Tyr Phe Ser Pro	Leu Asp Cys Met Ile Lys Met Val Ala Gln Glu	245	250	255
Gly Pro Thr Ala	Phe Tyr Lys Gly Phe Thr Pro Ser Phe Leu Arg	260	265	270
Leu Gly Ser Trp	Asn Val Val Met Phe Val Thr Tyr Glu Gln Leu	275	280	285
Lys Arg Ala Leu	Met Lys Val Gln Met Leu Arg Glu Ser Pro Phe	290	295	300

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